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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,692	06/20/2003	Thomas N. Chalin	WCMI-0034	6722
20558	7590	03/22/2005	EXAMINER	
KONNEKER & SMITH P. C. 660 NORTH CENTRAL EXPRESSWAY SUITE 230 PLANO, TX 75074			ENGLISH, PETER C	
			ART UNIT	PAPER NUMBER
			3616	

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<i>Office Action Summary</i>	Application No.	Applicant(s)
	10/600,692	CHALIN ET AL.
Examiner	Art Unit	
Peter C. English	3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on \_\_\_\_.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-32 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) 25-32 is/are allowed.

6)  Claim(s) 1-9 and 12-22 is/are rejected.

7)  Claim(s) 10,11,23 and 24 is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 20 June 2003 is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 20030620; 20050217.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_ .  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_ .

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities:

At page 7, line 19, "46" should be "36".

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Raidel '948 (US 4,858,948). Raidel '948 discloses a suspension system including: an axle assembly 12; a hanger bracket 64 extending from a longitudinal frame member 16; an upper trailing arm 82 attached to the axle assembly 12 and the hanger bracket 64 by pivot joints 86, 90; and a lower trailing arm 94 attached to the axle assembly 12 and the hanger bracket 64 by pivot joints 98, 102. As shown in Fig. 2, the upper and lower arms 82, 94 extend laterally outward and are laterally offset relative to each other.

4. Claims 1-3, 12 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Raidel '300 (US 4,465,300). Raidel '300 discloses a suspension system including: an axle assembly 24; a hanger bracket 34 extending from a longitudinal frame member 30; an upper trailing arm 32 attached to the axle assembly 24 and the hanger bracket 34 by pivot joints 80, 94; and a lower trailing arm 32 attached to the axle assembly 24 and the hanger bracket 34 by pivot joints 74, 92. As shown in Fig. 5, the upper and lower arms 32, 32 extend laterally outward and are laterally offset relative to each other.

5. Claims 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Gottschalk et al. (US 6,073,947). Gottschalk et al. discloses a suspension system including: an axle assembly

5; hanger brackets 41 extending from longitudinal frame members 3; a cross member 55 extending between the hanger brackets 41; pivot mounting brackets 139 (see Fig. 4) secured to opposite ends of the cross member 55; upper and lower trailing arms 11, 13 extending between the axle assembly 5 and each hanger bracket 41, with the arms 11, 13 secured to the hanger brackets 41 and the mounting brackets 139 by pivot joints 153a, 153b (see Fig. 4); and a lift spring 29 for lifting the axle assembly 5.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raidel '948 (US 4,858,948) or Raidel '300 (US 4,465,300) in view of Van Raden et al. (US 5,230,528). Raidel '948 and Raidel '300 both lack a lift spring for lifting the axle assembly via a lever arm. Van Raden et al. teaches a suspension system including a lift spring 17 for lifting an axle assembly 35 via a lever arm 52. From this teaching of Van Raden et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Raidel '948 or Raidel '300 by providing a lift spring for lifting the axle assembly because this enables the

suspension system to be used for a lift axle or tag axle, enabling an associated vehicle to use more axles when loaded and fewer axles when unloaded.

9. Claims 7-9, 15-18, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raidel '300 (US 4,465,300) in view of Gottschalk et al. (US 6,073,947). Raidel '300 lacks a cross member connected between the hanger brackets and having a mounting bracket supporting the pivot joints. Gottschalk et al. teaches a suspension system including: an axle assembly 5; hanger brackets 41 extending from longitudinal frame members 3; a cross member 55 extending between the hanger brackets 41; pivot mounting brackets 139 (see Fig. 4) secured to opposite ends of the cross member 55; upper and lower trailing arms 11, 13 extending between the axle assembly 5 and each hanger bracket 41, with the arms 11, 13 secured to the hanger brackets 41 and the mounting brackets 139 by pivot joints 153a, 153b (see Fig. 4); and a lift spring 29 for lifting the axle assembly 5. From this teaching of Gottschalk et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Raidel '300 by providing a cross member connected between the hanger brackets and having a mounting bracket supporting the pivot joints because this provides reinforcement for the hanger brackets while providing the advantages described in column 10, lines 23-30 of Gottschalk et al. With respect to claim 18, Gottschalk et al. teaches the lift spring 29.

10. Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raidel '300 in view of Gottschalk et al. as applied to claims 15 above, and further in view of Van Raden et al. (US 5,290,528). The Raidel '300 and Gottschalk et al. combination lacks a lift spring for lifting the axle assembly via a lever arm. Van Raden et al. teaches a suspension system including a lift spring 17 for lifting an axle assembly 35 via a lever arm 52. From this teaching of Van Raden et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Raidel '300 by providing a lift spring for lifting the axle assembly via a lever arm because this enables the suspension system to be used for a lift axle or tag axle, enabling an associated vehicle to use more axles when loaded and fewer axles when unloaded. Further, the lift system of Van Raden et al. is simple and compact.

***Allowable Subject Matter***

11. Claims 10, 11, 23 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Claims 25-32 are allowed.

13. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to teach a suspension system, as defined in claim 25, including first and second hanger brackets and a cross member all of which are made of a composite material, with "composite material" being defined according to the specification at page 6, line 20 to page 7, line 2.

***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Raidel' 690 teaches an air spring suspension with a parallelogram linkage. JP 04278884 teaches a suspension cross member made of resin.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter C. English whose telephone number is 703-308-1377. The examiner can normally be reached on Monday through Thursday (7:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 703-308-2089. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about

the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Peter C. English  
Primary Examiner  
Art Unit 3616

3/16/05

pe  
16 March 2005